



Patient Family Education

From Children's Wisconsin

Spinal Surgery



Your child needs spinal surgery to treat a curve in their spine. If the curve is not fixed it may cause other health issues later in life. This is why early treatment is very important. Waiting too long to treat it may make the spine harder to correct and could lead to a riskier surgery.

What can I do to prepare for my child's spine surgery?

There are a number of things that will help you prepare. The surgery folder will prepare you and your child for surgery and the changes that you will experience afterwards. This is a very important part of this process. Every child is different based on their age and experiences before the surgery.

You will learn:

- To plan ahead for changes in your family life after the surgery.
 - Attend spinal fusion support group.
 - Taking time off from work and planning for FMLA if needed, typically up to 6 weeks.
 - Having a support system at home to assist you when needed.
 - Car transportation set up for a comfortable, safe ride home.
- What to do the days before surgery.
 - Meeting with your child's doctor.
 - Special Instructions before surgery.
 - Risks.
 - Possibility of Blood Donation.
- What will happen the day of surgery.
- What to expect while in the hospital after spine surgery.
 - Learn the care of your child in the hospital.
 - Pain medicines.
 - Nutrition for your child to avoid constipation with pain medicines.
 - Wound care.
 - Activities of daily living.
- Planning ahead for when you go home.
 - Who to call with concerns and questions.
 - Follow-up clinic visits.
 - Planning for return to school.

How can I plan ahead for changes in my family life after surgery?

Support Groups

Children's Wisconsin offers a Spinal Fusion Support Group. Here, you and your child will get the chance to hear from a few members of your healthcare team. You will also meet and talk to other kids who have had surgery like your child's.

Family Support

If you work outside the home, talk with your boss about options well before surgery. It is very important to arrange for this ahead of time. You may need to take time off from work and plan for a Family Medical Leave (FMLA). Most often, you will need about 2 straight weeks. Then you will need off and on for up to 6 weeks. This is called intermittent FMLA. Your child will need special care after surgery for at least 2 to 3 weeks. Someone will need to be with your child after surgery to help manage medicines. They will also need to help your child with daily activities at least until they are off of narcotics. This person must be able to care for your child while they recover.



Other helpful things to keep in mind:

- Accept help from friends and family. They may be able to take other children to or from school and activities.
- Clear as much as possible from your schedule. This will limit stress.
- Communicate with school and day care about the change in attendance and any extra needed help. If your school cannot accommodate a wheelchair or toileting needs, you may need to make arrangements for home schooling or a tutor if available. If you have paperwork that needs to be signed please bring it to the hospital with you so it can be faxed to your school. If your child has special therapy appointments, talk with your team to make a plan for the time they are recovering from surgery.

Transportation

Your child can ride in the car as usual with a regular seat belt. If your child is still using a car seat or booster seat it is fine to continue using the same one. Your child can also ride the school bus once they are ready to go back to school.

Sometimes riding in the car can be uncomfortable at first so you can plan pain medicine doses around trips. Also pillows or blankets can be used for comfort in the car.

What kind of brace will my child have after surgery?

Although unlikely, your child may need to wear a brace after surgery. Your child's doctor will discuss this with you more if one will be needed.

What do I need to do to prepare for the day of surgery?

You will meet with your child's doctor sometime before the surgery to talk about your child's medical condition and the surgery. Be sure to tell the doctor what medicines your child takes on a daily basis. You will receive a phone call from the day surgery nurse a few days before your child's surgery. The nurse will discuss final instructions or any changes. Instructions include:

- What time you need to be at the hospital.
- What medicines your child can take before surgery.
- Your child will need to have an empty stomach on the morning of surgery.

Medicines

Do not give your child aspirin or other nonsteroidal anti-inflammatories for two weeks before surgery. This includes ibuprofen (Motrin®, Advil®, Pediaprofen®) and naproxen. These medicines can slow down blood clotting. This may increase the risk of bleeding during and after surgery. You can give Tylenol as needed. Do not stop any prescribed medicines without talking with your doctor. If your child is put on any medicine or supplements other than an antibiotic before surgery, please call our office.



Bowel Preparation

It is best to clean out your child's bowels to prevent constipation. This is called bowel preparation. You will give your child a medicine called **Miralax starting 4 days before surgery**. Your child's nurse will talk with you about how much and when to give this medicine. You will also get a teaching sheet called "Pre-op Bowel Readiness" to help answer any questions.

Eating and drinking

It is important that your child has **an empty stomach on the morning of surgery**. If the stomach is not empty, food or drink can get into the lungs when anesthesia is given. This is called aspiration and could be very dangerous. The day surgery nurse will let you know when your child should stop eating and drinking, or getting tube feedings. Your child's procedure may be cancelled if these instructions are not followed.

Pre-op bath

It is **very important that your child has a bath before surgery followed by Chlorhexidine Gluconate (CHG) cloths**. These pre-op cloths help reduce the germs on your child's skin. Skin with less germs means less risk of infection after surgery. You will get these cloths and more information about them from your child's healthcare team.



Risks

All surgeries have some risks. Your child's healthcare team will talk with you about the risks with your child's surgery. They include:

- The rods or screws that are put in the spine may move or break. This may not cause any problems. If it does cause problems, surgery may be needed to fix it.
- An infection in the incision or wound. This could happen right away or years later.
- Other wound healing problems.
- Pain, discomfort, or muscle spasms after treatment.
- Bones that do not fuse in one area which can cause discomfort. It may also cause some loss of correction. This is called pseudoarthrosis.
- Weakness, numbness, paralysis, or bowel or bladder problems. This is caused by nerve damage.
- Discomfort years after surgery.
- Reactions to medicines, anesthetic, blood, or other chemicals used during the surgery.
- Blood loss can occur during surgery. This could cause heart attacks, stroke, or death.
- The condition may happen again or the spine may need correction again in the future.

Blood Donation

It is rare that your child may need a blood transfusion during surgery, however it is a possibility. You should discuss this with your child's doctor prior to surgery.

Patient Journey App

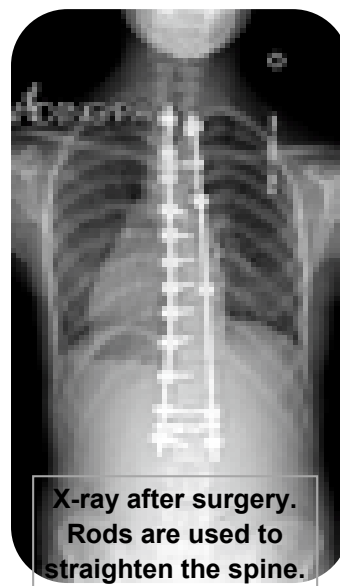
The Patient Journey text messaging service sends you timely information and reminders when you need them the most. Based on your child's upcoming spine procedure, updates sent directly to your mobile phone include information on what to expect, how to prepare, how the procedure is going, and important steps to take and things to know in the days and weeks following. Talk to your provider about how to get set up to receive the text message reminders.

What can I expect on the day of surgery?

The day of surgery your child will be taken to the pre-operative area. Vital signs will be checked and you will meet more members of your healthcare team. At this time you will be able to ask any questions you have. After this you will see the doctor and your child will be taken back for surgery.

During surgery your child will be given a medicine to help them sleep. It is called anesthesia. An anesthesiologist will monitor how much medicine your child gets. They make sure your child is comfortable the whole time. When the surgery is over your child will go to the post-anesthesia unit (PACU). Your child will stay in the PACU until they are more awake and can go to the inpatient unit in the hospital.

What can I expect in the hospital after spinal surgery?



Fluids

Your child will have more than one IV. The nurses will be measuring the amount of urine (pee) your child has through use of a catheter that is placed in their bladder once they are asleep in surgery. When ready, your child will be given clear liquids to drink. The nurses will measure the amount your child drinks. More food options will be slowly added until your child is back on a general diet. Your child may have an upset stomach or may vomit. Medicines can be given to control this if needed.

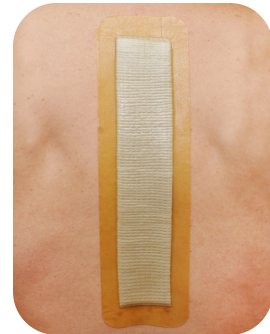
Pain

Your child will have some pain and may have muscle spasms. Pain medicine will be given through the IV until your child can take it by mouth. Your child will be asked to rate their pain using numbers or pictures. If your child is unable to communicate or understand the pain scale there is another pain tool that we can use. You can expect ups and downs with pain relief, even at home.

Your child will also have what's called a Patient Controlled Analgesic or PCA pump while they are in the hospital. Pain can be very different for each child, even with the same surgery. The amount of pain can also change from one time of day to another. A PCA lets a child or parent control the amount of medicine by pushing the button as needed. Your child's nurse will discuss this in more detail with you in the hospital.

Wound Care

Your child's incision will be covered by a large bandage after surgery. They also may have special drains called Jackson Pratt (JP) drains to collect drainage. The nurses will check these drains and the bandage. Once the incision begins to heal, your child's drains will be removed. Your child will be given pain medicine before the drain is removed.



The bandage over the incision will be replaced the day your child is discharged from the hospital. After this, you will monitor the bandage at home. If over 50% of the bandage is saturated with drainage, please call the Orthopedic Nurse line Monday-Friday 8:00am-4:30pm, or if after hours, please call the hospital operator at 414-266-2001 and have the on-call orthopedic resident paged. They will instruct you to either come into clinic or remove the bandage and replace it with dry gauze and tape securely. If there is drainage, the bandage will have to be changed more often.

Activity

Your child will need to be repositioned to their back, side or stomach every 2 hours right after surgery. It may help to use pillows for support. Your nurse will show you how to position them on their sides and back. Some children have anxiety or pain when changing positions. It may help to give pain medicine before a position change.

It is also important to get up and move around after surgery. Your child will see a physical therapist (PT). The PT or nurse will begin sitting or standing your child as early as the first night after surgery or the next day. The PT will help your child learn to keep their spine-in-line when getting out of bed. This is called the LOG concept. This will be used to help your child roll from their back to their side while in bed after surgery and to sit up and stand when it's time to get out of bed. Have your child practice this technique at home before surgery if able.

LOG concept:

1. Lie on your side with your legs together.
2. Bend both legs at the hips with knees at a 90 degree angle. Your knees and lower legs should be over the edge of the bed.
3. Keep your back and upper legs in line and use your arms to push your body up sideways.
4. After sitting up, use your arms to steady yourself and hold your back straight.
5. When ready to stand up, use your arms to slide your body forward. If your child needs a standing support like a walker, make sure it is within reach.



Cares

The nurse will help your child use the bathroom and bathe after surgery. Your child may have a urinary catheter from the surgery. If so, your child's nurse will check this. Most often, the catheter is taken out a few days after surgery. If your child is able to get out of bed, their nurse will help them to the bathroom. A commode may be used if this is easier for your child. A commode is a movable toilet put near the bed.

Your child will have bed baths after surgery. You will work with your child's nurse to help your child get a bath every day. There are bath wipes that you can use.

Lung Exercises

After surgery it is important to exercise the lungs by taking deep breaths. Your child's nurse will give you a special machine called an incentive spirometer. It will help your child take a deep breath and keep their lungs working well. If your child is not able to do this, a Respiratory Therapist (RT) will come to your child's room with a different machine.



What will I need to learn in the hospital to take care of my child at home?

You will need to learn the care of your child while your child is in the hospital. Your child will be in the hospital until their goals are met. On average this is 3 to 5 days. Each surgery and every child is different so it may vary. Plan to spend time each day to learn the cares.

Pain

Every child copes with pain differently. Your child will have pain after surgery that will get better over time. The most common pain after going home is upper back pain. This is called scapular pain. Your nurses will help you learn how we measure pain in the hospital. The doctor will talk with you about pain medicines to use after surgery. Some children need medicines on a strict schedule, others do not. Use your best judgment to decide if your child has pain and which type of pain medicine they need. You will learn how to give these medicines at home and what side effects to watch for. If your child has any side effects, call your child's doctor.

Your child may have muscle spasms after the surgery. A muscle spasm is an uncontrolled, normally fast, muscle jerk. It might be seen by others. When muscles are cut or stretched during surgery, the muscle can react by going into spasm. Spasms may be related to the increased pain your child is having. Your child may also get medicine to help control muscle spasms.

As their activity increases, your child may have some days when discomfort increases as well. These "bad days" will become less frequent as your child becomes more active.

Activity

You will learn how to help your child move around. Your child will have minimal weight restrictions. These restrictions are based on your child's procedure and their comfort level. Your doctor will let you know when your child can go back to their normal activities during follow-up appointments.

Some children may take a longer time to regain strength and movement with normal activities. If your provider feels your child will benefit from physical therapy, you will be provided with a referral as needed.

If your child is able to drive, they can start driving. This is often around 6 weeks if:

- They are able to twist and look over their shoulder.
- Are off strong pain medicine.

Bathing and swimming

The bandage will need to stay completely dry at all times. Your child will not be able to shower until cleared by your provider which is usually after their 1 week post-operative appointment. Your child can use just a wash cloth or sponge at the sink until the wound is healed. There is dry shampoo that your child can use to clean their hair without water. You may find that covering your child's bandage really well and leaning their head over a tub or sink to wash hair works also. Some children go to a salon to have them wash their hair especially if it is longer.



Swimming is not allowed until after your first follow-up visit. The wound must be healed. Once you are allowed to swim, it may be only allowed in chlorinated pools for a while after surgery. Your child's doctor will let you know when your child can go swimming.

Wound Care

While in the hospital, someone from your health care team will change the first dressing. You will get specific wound care instructions. You will monitor the bandage at home. If over 50% of the bandage is saturated with drainage, please call the Orthopedic Nurse line Monday-Friday 8:00am-4:30pm, or if after hours, please call the hospital operator at 414-266-2001 and have the on-call orthopedic resident paged. They will instruct you to either come into clinic if during business hours or they may have you remove the bandage and replace it with dry gauze and tape securely. If there is drainage, the bandage will have to be changed more often.

Scars are sensitive to sun exposure. **Skin will discolor if not protected by 50 SPF** sunscreen or zinc oxide lotion for at least 1 year.

Diet

Your child's appetite may be lower than normal because of being less active. A healthy diet and lots of fluids are important for healing. Offer a variety of foods from all food groups such as meats, grains, dairy, as well as fruits and vegetables. Discourage junk foods, candy and soda as they will not help the healing. A multivitamin is also recommended.

Constipation (Hard BMs)

Constipation can be a problem both from pain medicines after surgery, as well as lower activity levels. Drinking plenty of fluids is important to keep the bowels regular. Eating a variety of fruits and vegetables, and whole grains will help both healing and regular bowel movements. Try to limit highly processed foods, cheese, unripe bananas, chocolate, deep fried food, and fatty meats. You can add 2 to 4 ounces of prune, cherry, apple, white grape or pear juice and/or fiber bars to prevent constipation. It will also help if you increase fiber in your child's diet.



An easy way to know how much fiber your child should have is:

- Your child's age + 5 = the number of grams of fiber needed each day. Read the food labels to see how much fiber is in the food.

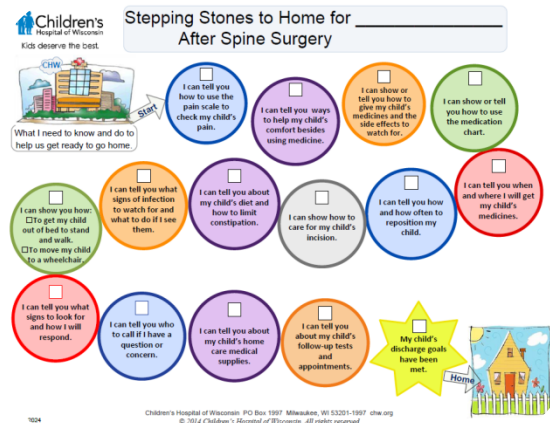
Follow these instructions to help prevent constipation issues. When you first get home from the hospital and **while your child is on pain medicine (narcotics), the use of daily stool softeners (Miralax) is highly recommended.**

*******If your child is not having daily or at least every other day bowel movements, please contact the Orthopedic nurse line at 414-266-2411 Monday–Friday from 8:00 a.m.–4:30 p.m.**

Getting ready to go home

From the very first day after surgery until you go home, you will work with the healthcare team to learn how to care for your child. You will use our Stepping Stones to Home Chart so you know what you need to learn.

Before leaving the hospital, you will learn about when you should call and talk with your medical team.



Call if your child has any of these problems:

- Pain that is not relieved by the pain medicine.
- Temperature over 101.5° F (38.5° C).
- The area around the incision is red or swollen.
- There is more drainage, or it is foul smelling, cloudy or yellow.
- Not drinking enough to pee at least every 8 hours.
- Nausea or vomiting.
- Having a hard time pooping. No BM in 3 days.
- If your child has a brace and:
 - Has any skin redness or sores.
 - The brace is too loose or too tight.

Who to call with questions and concerns:

- **Orthopedic Clinician.** Call (414) 266-1634,
Monday – Friday: 6:00am to 2:30pm
- **Orthopedic Clinic Line.** Call (414) 266-2411,
Monday - Friday: 8:00am to 4:30pm.
- At all other times, call the Children's Wisconsin operator at 414-266-2000.
Ask to talk with the **On-Call Orthopedic Surgery Resident.**

Clinic visits

Remember to plan ahead for your child's follow-up clinic visits. Your child's first appointment after they have had surgery will be scheduled before you leave the hospital. The first visit is normally 7 to 10 days after surgery. This visit will focus on how the wound is healing. If your child has stitches or staples these may be removed at that time.

Allow extra time to get ready and in to the visit. Think about asking family or friends to help with transportation and moving your child if needed. Valet parking, wheelchairs and wagons may be available at the main campus hospital entrance.

The clinic visits after surgery will focus on:

- Wound healing and dressing changes if needed
- Skin problems from the cast or brace
- Pain control
- Diet
- Activity/returning to school
- Bowel and urine problems
- Emotional support

After surgery, long term follow up care visits with your doctor are very important. This will include physical exams and occasional imaging such as x-rays, ultrasounds, or MRI scans. The first x-ray of your child's spine will be performed around 6 weeks after surgery. Your child's doctor will talk to you about how long your child will continue with visits.

Returning to school or work

You child may return to school or work when they have more energy and are not on narcotic pain medicines. Every patient is different, but most children are ready to return to school a 3 to 4 weeks after surgery. It may be helpful for your child to start with half days and slowly progress to full days. Your child should not participate in gym class or other sports/activities until your child's doctor says it's ok. Your child should not carry heavy objects on their back like a heavy backpack. You can talk to the school about a second set of books to be kept at home. If your child will miss at least 6 weeks of school, a home tutor may be arranged with the school. If needed for your child's school, the doctor or nurse can give you excuse forms for:

- Gym class/sports activities.
- Home tutor.
- Elevator pass.
- Extra time between classes.

Dental and other precautions

It is important to tell your child's dentist, orthodontist or oral surgeon about the spinal surgery. After surgery your child **will need to take an antibiotic 1 hour before going to the dentist for at least 5 years**. This will help prevent an infection around the hardware in their back. A prescription for an antibiotic will be provided for future dentist or orthodontist appointments. If you have questions or need refills, call your pharmacist.

If possible, schedule dental cleanings and brace adjustments before your child's surgery. If done after surgery you will need to wait for at least 2 months to have these appointments.

Avoid tattoos or body piercings for at least one year. These cause increased risk of infection.

Smoking

Smoking is never recommended. Smoking, or being around someone who is smoking, can delay wound healing after surgery. This can lead to increased risk of the spine not fusing.

Implant cards

After your child's surgery, if hardware was placed, you can obtain an implant card to be kept with your child. Your child may need this if they have to go through metal detectors in shopping malls, at school or airports, etc. There is a card from the hardware company that has your child's name, their surgeon, the name and date of their surgery and a picture of a generic spine x-ray with hardware visible. This card is available to you at no cost.

There is an implant card that is available to purchase from a company we are affiliated with that has a picture of your child's own spine x-ray with their hardware as well as their name, their surgeon's name and the name and date of their surgery.

Please contact your provider to request either of these. The implant cards may take up to 12 weeks to receive.

Questions/Notes

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